IN THE CLAIMS:

Cancel all of the claims in the application and substitute the following new claims:

50. Method of using

(i) a nucleic acid construct comprising at least one hormone responsive element (HRE) and a transgene, said at least one HRE being not functionally linked to the transgene, and

(ii) a hormone-hormone receptor complex for preparing an agent for gene transfer.

51. The method of claim 50, wherein the transgene is selected from the group consisting of genes encoding a blood clotting factor, hormone genes, hormone receptor genes, growth factors, enzyme genes, genes encoding cytokines or lymphokines, genes encoding inhibitor substances, genes encoding substances that function as drugs or vaccines, and antisense sequences.

52. The method of claim 51, wherein the transgene is a gene encoding a blood clotting factor and the agent is suitable for treating hemophilia.

53. The method of claim 52, wherein the blood clotting factor is a human blood clotting factor and preferably is selected from the group consisting of factor VIII, factor IX, and von Willebrand Factor (vWF).

54. The method of claim 50, wherein the nucleic acid construct comprises 1 to 20, preferably 3 to 10 HRE(s).

55. The method of claim 50, wherein the at least one HRE is a steroid responsive element, preferably a progesterone responsive element (PRE).

56. The method of claim 53, wherein the HRE is a PRE and the blood clotting factor is factor IX, and preferably the factor IX has a nucleotide sequence of 689 to 2071 of SEQ ID NO:1.

57. The method of claim 54, wherein the HRE is a PRE and the blood clotting factor is factor VIII.

58. The method of claim 55, wherein the PRE has the double stranded DNA sequence comprised of the DNA sequences of SEQ ID NOs: 3 and 4.

59. The method of claim 50, wherein the construct further comprises functional DNA sequences selected from the group consisting of promoter sequences, enhancer sequences, silencer sequences, origin of replication sequences, integrational sequences, marker genes and switch sequences.

60. The method of claim 59, wherein the construct further comprises a tissue-specific promoter, preferably an α-antitrypsin promoter.

61. The method according to claim 50, wherein the hormone-hormone receptor complex is a steroid-steroid receptor complex.

62. The method of claim 61, wherein the molar ratio of HRE within the nucleic acid construct to hormone receptor is from 1:1 to 1:10, preferably 1:2 to 1:5, and/or the molar ratio of hormone to hormone receptor is at least 1000:1, preferably at least 10000:1.

63. The method of claim 61, wherein the receptor is a progesterone receptor and the steroid is progesterone or a progesterone derivative.

64. The method of claim 63, wherein the progesterone is natural micronized progesterone solubilized in a liphophilic matrix system and/or the progesterone receptor is hPR-A, hPR-B or comprises the nucleotide sequence of 557 to 933 SEQ ID NO:18.

65. A pharmaceutical composition comprising a nucleic acid construct comprising at least one HRE and a transgene as defined in claim 50 and/or a vector comprising said nucleic

acid construct, said at least one HRE being coupled to a hormone-hormone receptor complex.

66. The pharmaceutical composition of claim 65, wherein the hormone-hormone receptor complex is a steroid-steroid receptor complex.

67. The pharmaceutical composition of claim 65, wherein the transgene is a gene encoding a blood clotting factor.

68. The pharmaceutical composition of claim 67, wherein the blood clotting factor is factor IX.

69. The pharmaceutical composition of claim 67, wherein the blood clotting factor is factor VIII.

70. The pharmaceutical composition of claim 67, which is suitable for gene transfer, preferably for treating hemophilia.

71. A nucleic acid construct comprising at least one HRE and a transgene being a gene encoding a blood clotting factor, wherein one of said at least one HREs is not functionally linked to the transgene.

72. The nucleic acid construct of claim 71, wherein the blood clotting factor is a human blood clotting factor and preferably is selected from the group consisting of factor VIII, factor IX, and von Willebrand Factor (vWF).

73. A vector comprising the nucleic acid construct of claim 71.

74. A transformed cell or transgenic organism comprising the nucleic acid construct as defined in claim 71.

75. A composition of matter comprising

- the nucleic acid construct comprising at least one HRE and a transgene as defined in claim 71, and/or

- a vector comprising said nucleic acid construct, said at least one HRE being coupled to a hormone-hormone receptor complex.

76. A method for preparing the composition of matter as defined in claim 75, which method comprises admixing the nucleic acid construct with the hormone receptor and the hormone.

77. A method for gene transfer which comprises administering the agent as defined in

claim 50 to an organism or to a cellular system.

78. A method for delivering into an organism or into a cellular system a nucleic acid encoding a transgene to be expressed in the cells of the organism or the cells of the cellular system, which method comprises administering an agent as defined in claim 50 to the organism or to the cellular system so that the hormone in the composition interacts with the cell membrane and therewith enhances diffusion and transport of the nucleic acid that is coupled to the hormone-hormone receptor complex across the membrane and into the cell.

79. The method of claim 78, wherein a nucleic acid encoding human factor VIII or factor IX is delivered into the cell.

80. A method of treating blood clotting disorders comprising administering a therapeutically effective amount of the pharmaceutical composition of claim 67 to an organism or to a cellular system.

81. A method of treating hemophilia B, comprising administering a therapeutically effective amount of the pharmaceutical composition of claim 68 to an organism or to a cellular system.

82. A method of treating hemophilia A, comprising administering a therapeutically effective amount of the pharmaceutical composition of claim 69 to an organism or to a cellular system.

83. Method of using

(i) a nucleic acid construct comprising at least one hormone responsive element (HRE) and a transgene wherein the transgene is a gene encoding a blood clotting factor and the at least one HRE is functionally linked to the transgene, and

(ii) a hormone-hormone receptor complex for preparing an agent for treating hemophilia.

84. The method of claim 83, wherein the blood clotting factor is a human blood clotting factor and preferably is selected from the group consisting of factor VIII, factor IX, and von Willebrand Factor (vWF).

85. The method of claim 83, wherein the nucleic acid construct comprises 1 to 20, preferably 3 to 10 HRE(s).

86. The method of claim 83, wherein the at least one HRE is a steroid responsive element, preferably a progesterone responsive element (PRE).

87. The method of claim 84, wherein the HRE is a PRE and the blood clotting factor is factor IX, preferably the factor IX has a nucleotide sequence of 689 to 2071 of SEQ ID NO:1.

88. The method of claim 84, wherein the HRE is a PRE and the blood clotting factor is factor VIII.

89. The method of claim 86, wherein the PRE has the double stranded DNA sequence comprised of the DNA sequences of SEQ ID NOs: 3 and 4.

90. The method of claim 83, wherein the construct further comprises functional DNA sequences selected from the group consisting of promoter sequences, enhancer sequences, silencer sequences, origin of replication sequences, integrational sequences, marker genes and switch sequences.

91. The method of claim 90, wherein the construct further comprises a tissue-specific promoter, preferably an α-antitrypsin promoter.

92. The method according to claim 83, wherein the hormone-hormone receptor complex is a steroid-steroid receptor complex.

93. The method of claim 92, wherein the molar ratio of HRE within the nucleic acid construct to hormone receptor is from 1:1 to 1:10, preferably 1:2 to 1:5, and/or the molar ratio of hormone to hormone receptor is at least 1000:1, preferably at least 10000:1.

94. The method of claim 92, wherein the receptor is a progesterone receptor and the steroid is progesterone or a progesterone derivative.

95. The method of claim 94, wherein the progesterone is natural micronized progesterone solubilized in a liphophilic matrix system and/or the progesterone receptor is hPR-A, hPR-B or comprises the nucleotide sequence of 557 to 933 SEQ ID NO:18.

96. A method for gene transfer which comprises administering the agent as defined in claim 83 to an organism or to a cellular system.

97. A method for delivering into an organism or into a cellular system a nucleic acid encoding a transgene to be expressed in the cells of the organism or the cells of the cellular system, which method comprises administering an agent as defined in claim 83 to the organism or to the cellular system so that the hormone in the composition interacts with the cell membrane and therewith enhances diffusion and transport of the nucleic acid that is coupled to the hormone-hormone receptor complex across the membrane and into the cell.